

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application and indicating that claims 3, 4, 8-10, 17 and 18 contain allowable subject matter.

Disposition of Claims

Claims 1-18 were pending in the present patent application. By way of this reply, claims 3, 8, 17 and 18 have been rewritten in independent form including all of the limitations of the base claim and any intervening claims. Thus, claims 3, 4, 8-10, 17 and 18 are allowable. Accordingly, claims 1, 3, 8, and 16-18 are independent. The remaining claims depend, either directly or indirectly, from claims 1, 3, and 8.

Claim Amendments

Claims 1 and 16 have been amended for clarification. Claims 3, 8, 17 and 18 have been rewritten in independent form including all of the limitations of the base claim and any intervening claims. Thus, claim 3, 4, 8-10, 17 and 18 are allowable. Claim 10 has been amended to correct typographical errors. Applicant asserts no new matter has been added by way of these amendments and no further search or consideration is required.

Drawings

Applicant respectfully requests the Examiner acknowledge the formal drawings filed on December 5, 2003 and indicate whether they are acceptable.

Priority Claims

Applicant respectfully requests the Examiner acknowledge the application's claim to priority and the priority documents submitted on December 5, 2003.

Rejections under 35 U.S.C. §102

Claims 1, 2, 7, and 12 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,531,854 issued to Hwang (hereinafter “Hwang”). For the reasons set forth below, this rejection is respectfully traversed.

Amended independent claim 1 has been amended to recite, in part, “wherein said current control unit controls the drawn current when the voltage supplied to the load varies to be higher or lower than a predetermined voltage value.”

Hwang discloses regulating an output voltage using a feedback loop. However, Hwang solely discloses regulating the output voltage (V_{OUT}) when the output voltage falls below a reference voltage (V_{REF1}). For example, consider the following: Hwang teaches the error signal (V_{EAO}) (the difference between V_{OUT} and V_{REF1}) decreases as V_{OUT} increases (*see* Hwang at column 4, line 67 – column 5, line 1). Hwang further teaches V_{EAO} increases as V_{OUT} decreases (*see* Hwang at column, lines 10-11). This behavior in V_{EAO} implies V_{OUT} is always less than V_{REF1} . As V_{OUT} increases towards V_{REF1} , V_{EAO} (the error signal) decreases. As V_{OUT} decreases further away from V_{REF1} , V_{EAO} (the error signal) increases. Further, as V_{OUT} decreases, Hwang discloses increasing the power (current) to the load to raise V_{OUT} closer to V_{REF1} . As V_{OUT} increases, Hwang discloses decreasing the power (current) to prevent V_{OUT} from exceeding V_{REF1} . (*See* Hwang at column 5, lines 46-53).

Thus, Hwang only discloses adjusting the drawn current while V_{OUT} is below V_{REF1} . This squarely contradicts amended independent claim 1 which requires the drawn current be adjusted when the voltage supplied to the load varies to be higher or lower than a predetermined voltage value. Thus, amended independent claim 1 is patentable over Hwang.

Claims 2, 7, and 12 depend, either directly or indirectly, from claim 1 and are allowable for at least the same reason. Accordingly, withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. §103

Claims 5, 6, and 11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hwang. As discussed above, amended independent claim 1 is patentable over Hwang. Claims 5, 6, and 11 depend, either directly or indirectly, from claim 1 and are allowable for at least the same reason. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 13-15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hwang in view of U.S. Patent No. 5,150,072 issued to Malec (hereinafter “Malec”). As discussed above, amended independent claim 1 is patentable over Hwang. Further, like Hwang, Malec is silent regarding adjusting the drawn current when the voltage supplied to the load varies to be higher or lower than a predetermined voltage value as recited in the claims. Accordingly, Malec does not teach what Hwang lacks. Thus, amended independent claim 1 is patentable over Hwang and Malec.

Hwang and Malec, whether viewed separately or in combination, fail to teach or suggest all the limitations of amended independent claim 1. Claims 13-15 depend, either directly or indirectly, from amended claim 1 and are allowable for at least the same reason. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 16 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Hwang in view of U.S. Patent No. 5,059,889 issued to Heaton (hereinafter “Heaton”). As discussed above, amended independent claim 1 is patentable over Hwang. Heaton, like Hwang, does not disclose adjusting the drawn current when the voltage supplied to the load

varies to be higher or lower than a predetermined voltage value as recited in the claims. Accordingly, Heaton does not disclose what Hwang lacks. Thus, amended independent claim 1 is patentable over Heaton and Hwang.

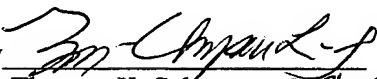
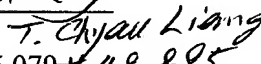
Hwang and Heaton, whether viewed separately or in combination, fail to teach or suggest all the limitations of amended independent claim 16. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 02008/133001).

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Respectfully submitted,

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